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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/526,886

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EXAMINER

ELPENORD, CANDAL

ART UNIT

PAPER NUMBER

2616

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/526,886	Applicant(s) MISHRA ET AL.	
	Examiner CANDAL ELPENORD	Art Unit 2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 15,20-22 and 26-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 15,20-22 and 26-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>13 June 2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because all the blocks in Fig. 1 should be labeled with descriptive legends. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.
2. In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as “Annotated Sheets” and must be presented in the

amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Response to Arguments

3. Applicant's arguments filed on March 11, 2008 with respect to claims 10-14, 15-28 have been considered but are moot in view of the new ground(s) of rejection.

4. Claims 10-14, 16-19, 23-25 and 29 have been canceled.

5. Claims 15 and 22 have been amended.

The applicants allege that a flow in Yazaki '424 has different meaning with the flow defined in claims 15 and 22.

In response the Examiner respectfully disagrees with the applicant assertions because the Yazaki '424 explicitly discloses and defines flow as series of packets are recited in col. 4, lines 14-22.

The applicant allege that threshold values associated with bucket stored in a respective memory location such as SRAM is not control parameter indicator for each set of flows.

In response, the Examiner respectfully disagrees with the applicant assertions because storing threshold values associated with memory locations with respect to the number of data units in the bucket would enable one having skill in the art perform flow control including traffic shaping.

In response, the Examiner respectfully disagrees with the applicant assertion because the test for obviousness is not whether or not the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. **Rather, the test is what the combined teachings of the references would have suggested to those of ordinary skill in the art.** See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case the Examiner asserts that combination of Tuck, III '306 and Yazaki '424 when considered as whole clearly teaches the the applicant claimed invention.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. **Claims 15, 21-22, 27-28** are rejected under 35 U.S.C. 102(e) as being anticipated by Tuck, III et al (US 2002/0152306 A1).

Regarding claims 15, 22, Tuck, III '306 discloses a data switch (fig. 2, see Switching Fabric with Processing circuitry for processing incoming packets, recited in paragraph 0031) for passing packets, as sets of one or more packet flows (noted: forwarding of packets form input modules to output modules, recited in paragraph 0031)

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between a plurality of ports (fig. 1, Switching nodes in combination with fig. 2, Switching Fabric in combination with the processing circuitry, see plurality of input ports such as 20-1 to 20-n and output ports such as 21-1 to 21-n, where the incoming data packets are output, recited in paragraphs 0028, 0031) the data switch (fig. 2, see Switching Fabric with Processing circuitry for processing incoming packets, recited in paragraph 0031), comprising: a flow detection device (fig. 3, Processing Circuitry 35 in combination with the Policing Circuit 35, "monitoring of the data on the link", recited in paragraph 0032) configured to detect a set of one or more packet flows to which each packet belongs (Noted: method and apparatus for monitoring of data traffic and where the data are transferred in data packets, recited in abstract and paragraphs 0012, lines 1-7); a bandwidth monitoring device (fig. 3, Policing Circuit 26, "monitoring of the data traffic on the link", recited in paragraphs 0032-0033) having a RAM memory (fig. 3, see, plurality of memory locations such as SRAM 56, SRAM 58, SRAM 60, recited in paragraph 0038, lines 1-7) with a section (fig. 3, SRAM 56) corresponding to each set of one or more packet flows (noted: each memory stores for each link and class of service upon receipt of data packet, recited in paragraph 0038), the memory sections (fig. 3, SRAM 56, 60, 59 couples to the counter) each containing a bandwidth counter for the corresponding set of one or more packet flows (fig. 3, Counter 32 couples to the packet processing circuitry in combination with the Derivation circuit in combination with the comparison circuit, SRAM memory sections 56, 60, "to determine whether data packets received on the various links and classes have caused the allowable data rates to be exceeded", recited in paragraph 0041), the bandwidth monitoring device (fig. 3, Policing

Circuit 26, "monitoring of the data traffic on the link", recited in paragraphs 0032-0033) being configured to: subtract the size of the packet from a value of the bandwidth counter corresponding to the detected set of one more packet flows to obtain an adjusted value (noted: subtracting of the present counter value from the present bucket contents, recited in abstract, lines 4-12), and to issue a policing instruction (Noted: marking of the incoming packet according to the adjusted value, recited in abstract, lines 4-20, noted: "multistage policing so that multiple discard eligibility can be assigned", recited in paragraph 0016) according to the relationship of the adjusted value with one or more predetermined levels (noted: bucket contents threshold associated with the counter, recited in abstract, lines 1-21, paragraph 0048) replace the value of the bandwidth counter corresponding to the detected set of one more packet flows by the adjusted value in the event that the packet is transmitted by the switch (noted: the adjustable updatable value is used to update the updatable value, recited in paragraphs 0013, 0048); and replenish the value stored in each bandwidth counter at intervals (noted: "storing of the updatable bucket contents as the new value in the bucket location", recited in 0043, lines 14-35, updating of the bucket in time frame", recited in paragraph 0046, lines 1-7); wherein the one or more predetermined levels include a first predetermined level corresponding to a first set of one or more flows and a second predetermined level (noted: each memory (noted: (fig. 3, SRAM 56, 58, 60) stores of predetermined threshold for each class of service of a new packet, recited in paragraph 0038), different from the first predetermined level (noted: three predetermined threshold values with respect o the number of units of data, recited in

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paragraphs 0037,0038, 0039), corresponding to a second set of one or more flows (noted: three predetermined threshold values with respect to the number of units of data, recited in paragraphs 0037,0038, 0039); and wherein the RAM memory includes control parameter indication portions for each of the sets of one or more flows (noted: threshold value associated with the bucket, recited in paragraph 0039, 0036), the control parameter indication portions indicating respective registers (fig. 3, SRAM memory locations 56, 58 and 60, recited in paragraph 0038) for storing the data representative of the one or more predetermined levels (noted: three predetermined threshold values with respect to the number of units of data, recited in paragraphs 0037,0038, 0039, "stores of predetermined threshold in each memory location", recited in paragraphs 0038).

Regarding claims 21, 27, Tuck, III '306 discloses the data switch (fig. 2, see Switching Fabric with Processing circuitry for processing incoming packets, recited in paragraph 0031), wherein each set of one or more flows (noted: number of data units in packets, recited in paragraph 0012) is associated with one of a plurality of policing the plurality of policing instructions (noted: "multistage policing so that multiple discard eligibility can be assigned", recited in paragraph 0016) including dropping a packet (Noted: discarding of packet due to excess traffic or congestion or discarding when the threshold is exceeded", recited in paragraph 0015, and reducing a priority packet (noted: increasing the discard eligibility of the packet if the packet causes threshold to be exceeded, recited in paragraph 0015).

Regarding claim 22, please see the Examiner comments with respect to claims 15 as discussed above.

Regarding claim 27, please see the Examiner comments with respect to claim 21.

Regarding claim 28, Tuck, III '306 discloses the method ("method and apparatus for monitoring data flow", recited in paragraph 0012, lines 1-7), wherein the predetermined levels (noted: three predetermined threshold values with respect to the number of units of data, recited in paragraphs 0037, 0038, 0039, "stores of predetermined threshold in each memory location", recited in paragraphs 0038) include a first predetermined level corresponding to a first set of one or more flows (noted: each memory (fig. 3, SRAM 56, 58, 60) stores of predetermined threshold for each class of service of a new packet, recited in paragraph 0038) and a second predetermined level (noted: three predetermined threshold values with respect to the number of units of data, recited in paragraphs 0037, 0038, 0039, "stores of predetermined threshold in each memory location", recited in paragraphs 0038), different from the first predetermined level, corresponding to a second set of one or more flows (noted: three predetermined threshold values with respect to the number of units of data, recited in paragraphs 0037, 0038, 0039, "stores of predetermined threshold in each memory location", recited in paragraphs 0038).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. **Claims 20, 26** are rejected under 35 U.S.C. 103(a) as being unpatentable over Tuck, III et al (US 2002/0152306 A1) in view of Yazaki et al (EP 10058424 A2).

Tuck, III '306 discloses all the claimed limitation with the exception of being silent with respect to the claimed features: wherein the plurality of sets of one or more flows are grouped into ranges, and wherein the policing instructions in respect of a particular set of one or more flows depends upon the range in which the set of one or more flows lies .

However, Yazaki '424 discloses the above claimed features: Yazaki et al. discloses the data switch (fig. 1, Transmission 121 and Receiving devices 120/ bandwidth monitoring device, recited in column 6, lines 34-41), wherein the plurality of sets of one or more flows are grouped into ranges ("monitoring of one or more flows who share a bandwidth in check table", recited in column 10, lines 37-46), and wherein the policing instructions in respect of a particular set of one or more flows depends upon the range in which the set of one or more flows lies ("bandwidth check table policy rate", recited in column 10, lines 48-58).

wherein the plurality of sets of one or more flows are grouped into ranges, and wherein the policing instructions in respect of a particular set of one or more flows depends upon the range in which the set of one or more flows lies.

In view of the above, having the apparatus and method for monitoring a data flow at switching nodes of Tuck, III '306 and then the well-established teaching of Yazaki '424, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the features of Tuck, III '306 by using features as taught by Yazaki '424 in order to provide bandwidth monitoring of flows according to bandwidth contact as suggested in col. 10, lines 37-58.

Regarding claim 26, please see the Examiner comments with respect to claim 20.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Kawasaki et al (US 2001/0014081 A1), Aimoto et al (US 6,122,252), Krishnamurthy et al (US 2001/0025310 A1), Tallegas et al (US 2002/0089929 A1), Keck et al (US 2002/0101888 A1), and Saitoh, Satoru et al (US 2002/0169921 A1) are cited to show methods and systems that are related to the claimed invention.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to CANDAL ELPENORD whose telephone number is (571)270-3123. The examiner can normally be reached on Monday through Friday 7:30AM to 5:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kwang Bin Yao can be reached on (571) 272-3182. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Candal Elpenord/
Examiner, Art Unit 2616

/Kwang B. Yao/
Supervisory Patent Examiner, Art Unit 2616